

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 1, 7, 13-15, 17 and 18, AMEND claims 3, 19 and 20 and ADD new claim 21 in accordance with the following:

1. (CANCELLED)
2. (CANCELLED)
3. (currently amended) The RAID apparatus according to claim 4-19, wherein said control unit means includes-comprises:
 - a channel adapter circuit performing interface control with ~~said~~ high-rank apparatus;
 - a device adaptor circuit accessing said physical disk units in accordance with a requested operation; and
 - a resource manager circuit ~~determining~~ selecting one of the plurality of physical disk units to be accessed in accordance with said number of operations in said memory in response to a transfer request from said channel adapter circuit, and requesting said device adapter circuit to perform an operation accessing said determined physical disk unit.

4. (CANCELLED)
5. (CANCELLED)
6. (CANCELLED)
7. (CANCELLED)
8. (CANCELLED)
9. (CANCELLED)
10. (CANCELLED)
11. (CANCELLED)
12. (CANCELLED)
13. (CANCELLED)
14. (CANCELLED)
15. (CANCELLED)
16. (CANCELLED)

17. (CANCELLED)

18. (CANCELED)

19. (currently amended) A RAID apparatus comprising:
a plurality of physical disk units storing a plurality of copies of each of logical volumes;
and
a disk controller accessing any of the physical disk units which stores a designated logical volume to thereby access said designated logical volume,
said disk controller including:
a memory ~~having storing~~ a logical volume structure table storing a status ~~of and~~
said plurality of physical disk units of each logical volume, and a disk management table storing
statuses and the number of operations of each physical disk unit; and
a control unit which refers to said status in said logical volume structure table with
said designated logical volume, judges whether or not said status information of said logical
volume indicates abnormal, selects said single physical disk unit on which said designated
logical volume is allocated by comparison of the operation numbers in said disk management
table when a plurality of physical disk units storing copies of said designated logical volume are
normal, and selects a normal physical disk unit among said plurality of physical disk units of said
designated logical volume indicated by ~~the status information of said logical volume structure~~
table by referring said statuses of each physical disk unit in said disk management table when
said status information of said logical volume indicates abnormal;
~~wherein said status information stored in said table includes structure definition~~
~~information and mirroring information for each logical volume, and~~
~~wherein said mirroring information comprises a pair information indicating status of said~~
~~logical volumes in said table.~~

20. (currently amended) A RAID access method for a RAID apparatus comprising a
plurality of physical disk units storing a plurality of copies of each of logical volumes, comprising:

referring to a memory storing a table indicating a plurality of physical disk units and a status information of ~~said logical volume corresponding to each of said logical volumes and~~ status information indicating statuses and the operation numbers of ~~said each~~ physical disk units;

judging whether or not said status information of logical volume indicates abnormal;

selecting a single physical disk unit on which said designated logical volume is allocated by comparison of the operation numbers in said table when a plurality of physical disk units storing copies of said designated logical volume are normal from said status information of said logical volume in said table; and

selecting a normal physical disk unit among said plurality of physical disk units of said designated logical volume indicated by ~~the status information of said logical volume table by referring to said statuses of each physical disk unit in said table~~ when said status information of said logical volume indicates abnormal;

~~wherein said status information stored in said table includes structure definition information and mirroring information for each logical volume, and~~

~~wherein said mirroring information comprises a pair information indicating status of said logical volumes in said table.~~

21. (new) The RAID apparatus according to claim 19, wherein said status information stored in said logical volume definition table includes structure definition information and mirroring information for each logical volume, and

wherein said mirror information comprises a pair information indicates status of said logical volumes in said logical volume definition table.